

Model PM5-CO Panel Meter Monitor/Controller

Conductivity/Resistivity/PPM measurement, single or dual input

Suitable for a variety of applications including waste and water treatment, chemical processing, electronics, manufacturing, pulp and paper, pharmaceutical and food processing. The instruments are ideally suited for use with reverse osmosis and ion exchange demineralisers, cooling towers and boiler analysers.

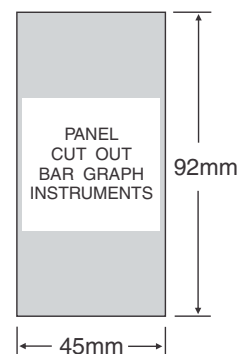
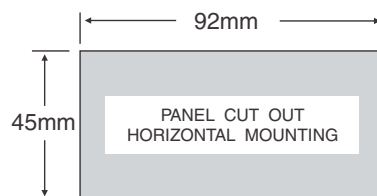
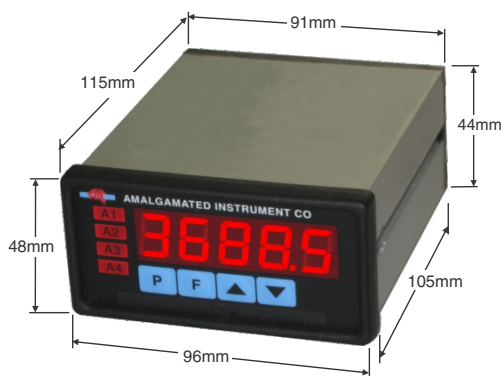


Inputs from one or two conductivity cells, plus temperature sensors

Features

- Single or dual conductivity/resistivity inputs
- Single or dual temperature sensor input for automatic temperature compensation
- Displays in $\mu\text{S}/\text{cm}$, $\mu\text{S}/\text{m}$, mS/cm , mS/m or $\text{M}\Omega$ or PPM. Can also display % rejection and temperature
- Programmable digital filter
- Versatile alarm/control relay can operate from either conductivity/resistivity/% rejection/PPM or temperature
- Relay 1 (and optional Relay 2 if fitted) can be set for alarm or PI control operation
- Programmable cell constants
- Programmable access levels allows the user to select which functions are easy to access or are locked out etc. Display is alternated between these via the front panel pushbuttons
- Wide range of optional outputs available
- 5 digit, 6 digit or 5 digit plus bargraph LED display models. 4 digit LED or 4 or 6 digit LCD displays also available but these require either a remote programmer or RS485 to PC connection for setup/calibration.
- 2 year guarantee

PM5 panel meter case dimensions and panel cut out



Allow an extra 10mm behind panel for connectors and wiring at the rear of the display

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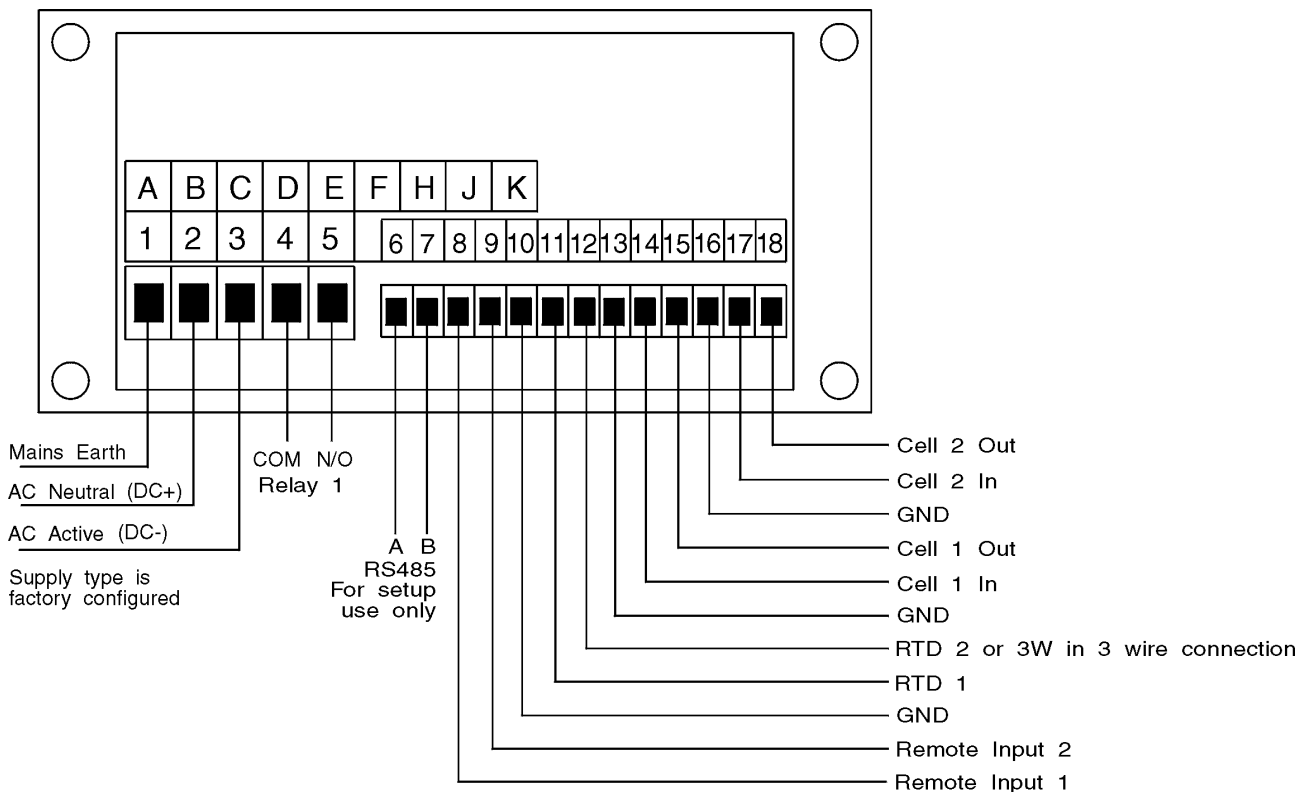
Specifications

Inputs:	One or two conductivity/resistivity cells K=0.01, 0.05, 0.1, 0.5, 1.0, 2.0, 5.0, 10, 50 or 100 selectable
Temperature input:	Pt100 RTD or Pt1000 RTD or 100Ω NTC thermocouple sensor or manual compensation
Measuring range:	(K = 0.01) 0 to 125uS/cm (K = 0.1) 0 to 1250uS/cm (K = 1.0) 10 to 12,500uS/cm (K = 10.0) 100 to 125,000uS/cm Selectable measuring units uS/cm, uS/m, mS/cm, mS/m, MΩ and PPM Temperature: -40 to 200°C
Accuracy:	1% of full scale
Sample rate:	1 sample every 2 seconds
ADC resolution:	1 in 20,000
ADC conversion:	Dual slope ADC
Microprocessor:	MC68HC11 CMOS
Ambient temp:	LED display models -10°C to 60°C
Humidity:	5% to 95% non condensing
Display types:	5 digit 14.2mm LED with alarm annunciators and 4 way keypad. 6 digit 14.2mm LED and 4 way keypad 20 segment LED bar graph with 5 digit display and 4 way keypad
Power supply:	240, 110, 48, 32, 24VAC 50/60Hz, 12 to 48VDC (factory configured)
Power usage:	AC supply 4 VA max, DC supply typically 80mA at 24VDC for instrument with no output options
Output (standard):	1 x relay, form A, rated 5A resistive
Relay action:	Programmable N.O. or N.C.

Physical Characteristics

Bezel size:	DIN 48mm x 96mm x 10mm
Case size:	44mm x 91mm x 115mm behind face of panel
Panel cut out:	45mm x 92mm (+1mm & -0mm)
Connections:	Plug in screw terminals (max 2.5mm ² wire)
Weight:	400g basic model, 450g with option card

Instrument rear panel electrical connections



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PM5-CO order codes - choose one option per section from the list below.

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- Power supply**
- 240 ----- 240VAC
 - 110 ----- 110VAC
 - 48A ----- 48VAC
 - 32A ----- 32VAC
 - 24A ----- 24VAC
 - DC ----- 12 to 48VDC isolated

- Display type**
- 4E ----- 4 digit 20mm red LED - no pushbuttons, requires RS485 comms to PC or remote programmer for setup
 - 4C ----- 4 digit 12.7mm LCD - no pushbuttons, requires RS485 comms to PC or remote programmer for setup
 - 5E ----- 5 digit 14mm red LED with front keypad and alarm annunciators
 - 5BP ----- 5 digit 7.6mm red LED + 20 segment bargraph and alarm annunciators
 - 6E ----- 6 digit 14mm red LED with front keypad
 - 6C ----- 6 digit 12.7mm LCD no pushbuttons, requires RS485 comms to PC or remote programmer for setup

- Optional outputs**
- R ----- One extra relay (form C, 5A @ 240VAC)
 - RR ----- Two extra relays (form C, 5A @ 240VAC)
 - RRR ----- Three extra relays (form C, 5A @ 240VAC)
 - R6 ----- Six extra relays (form A 2A @ 240VAC)
 - R12 ----- One extra relay (form A, 3A @ 240VAC) plus +/- 12V (24V) supply (20mA max.)
 - I ----- Isolated 4-20mA retransmission 12 bit
 - A ----- Isolated 4-20mA or DCV retransmission 16 bit
 - IR ----- Isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
 - AR ----- Isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
 - *IRRR ----- Isolated 4-20mA retransmission 12 bit + 3 extra relays (form A, 2A @ 240VAC)
 - ARRR ----- Isolated 4-20mA or DCV retransmission 16 bit + 3 extra relays (form A, 2A @ 240VAC)
 - *IR6 ----- Isolated 4-20mA retransmission 12 bit + 6 extra relays (form A, 2A @ 240VAC)
 - AR6 ----- Isolated 4-20mA or DCV retransmission 16 bit + 6 extra relays (form A, 2A @ 240VAC)
 - II ----- Dual isolated 4-20mA retransmission 12 bit
 - AA ----- Dual isolated 4-20mA or DCV retransmission 16 bit
 - IIR ----- Dual isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
 - AAR ----- Dual isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
 - 12 ----- +/- 12V (24V) or +/- 5V (10V) supply (20mA max.)
 - 12I ----- +/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA retransmission 12 bit
 - 12A ----- +/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA or DCV retransmission 16 bit
 - 12IR ----- +/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
 - 12AR ----- +/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
 - DP ----- 16 bit PNP digital output with 5/24V excitation
 - DPR ----- 16 bit PNP digital output with 5/24V excitation plus extra relay (form A, 3A @ 240VAC)
 - DN ----- 16 bit NPN digital output with 5/24V excitation
 - DNR ----- 16 bit NPN digital output with 5/24V excitation plus extra relay (form A, 3A @ 240VAC)
 - 2 ----- RS232 comms.
 - 2R ----- RS232 comms. + 1 extra relay (form A, 3A @ 240VAC)
 - 2RRR ----- RS232 comms. + 3 extra relays (form A, 2A @ 240VAC)
 - 2R5 ----- RS232 comms. + 5 extra relays (form A, 2A @ 240VAC)
 - *2I ----- RS232 comms. + isolated 4-20mA retransmission 12 bit
 - 2A ----- RS232 comms. + isolated 4-20mA or DCV retransmission 16 bit
 - *2IR ----- RS232 comms. + isolated 4-20mA retransmission 12 bit + extra relay (form A, 2A @ 240VAC)
 - 2AR ----- RS232 comms. + isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 2A @ 240VAC)
 - 4 ----- RS485 comms.
 - 4R ----- RS485 comms. + 1 extra relay (form A, 3A @ 240VAC)
 - 4RRR ----- RS485 comms. + 3 extra relays (form A, 2A @ 240VAC)
 - 4R5 ----- RS485 comms. + 5 extra relays (form A, 2A @ 240VAC)
 - *4I ----- RS485 comms. + isolated 4-20mA retransmission 12 bit
 - 4A ----- RS485 comms. + isolated 4-20mA or DCV retransmission 16 bit
 - *4IR ----- RS485 comms. + isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
 - 4AR ----- RS485 comms. + isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
 - ET ----- Ethernet comms. + RS232 or RS485 (Power over Ethernet available with PM5 DC supply models)
 - ETR ----- Ethernet comms. + RS232 or RS485 + 1 extra relay (form A, 3A @ 240VAC)
 - ETDL ----- Ethernet comms. + RS232 or RS485 + 8Mbyte data logger (Power over Ethernet available with PM5 DC supply models)
 - ETDLR ----- Ethernet comms. + RS232 or RS485 + 8Mbyte data logger + 1 extra relay (form A, 3A @ 240VAC) (Power over Ethernet available with PM5 DC supply models)

* means not a normal stock item - check availability, minimum order quantity may apply



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